(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 2 December 2004 (02.12,2004)

PCT

(10) International Publication Number WO 2004/105249 A3

(51) International Patent Classification⁷:

H03L 7/187

(21) International Application Number:

PCT/EP2004/006063

(22) International Filing Date: 17 May 2004 (17.05.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 03/06145

22 May 2003 (22.05.2003) FR

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

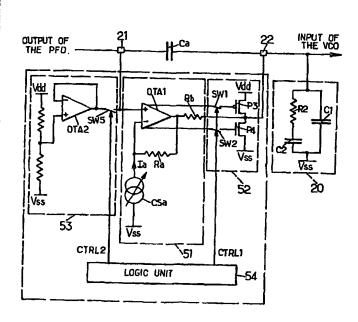
Published:

with international search report

(88) Date of publication of the international search report: 27 January 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VOLTAGE SHIFT CONTROL CIRCUIT FOR PLL



(57) Abstract: A PLL structure comprises a PFD, a loop filter and a VCO, as well as a voltage shift capacitor (Ca) coupling the PFD and the VCO. A voltage shift control circuit (50) is placed in parallel with the voltage shift capacitor. This circuit comprises controlled charging means (51), which are designed to charge the voltage shift capacitor according to a channel control signal. It also comprises controlled pre-charging means (52) which are designed to accelerate the charging of the voltage shift capacitor by the controlled charging means. It further comprises controlled biasing means (53), designed to ensure the bias of the input during the pre-charging of the voltage shift capacitor.

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H03L7/187 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 H03L Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Category ° Relevant to claim No. A WO 01/76072 A (SCHECHINGER ALOIS ;WANNENMACHER VOLKER (DE); SIEMENS AG 1-14 (DE)) 11 October 2001 (2001-10-11) page 3, line 11 - page 4, line 20; figure EP 0 041 882 A (THOMSON CSF) Α 16 December 1981 (1981-12-16) 1-14 page 2, line 42 - line 50; figure 3 EP 0 664 617 A (JAPAN RADIO CO LTD) 1 - 1426 July 1995 (1995-07-26) column 11, line 34 - column 15, line 5; figures 1,2 Х Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance •E• earlier document but published on or after the international *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document referring to an oral disclosure, use, exhibition or document published prior to the international filling date but later than the priority date claimed *&* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 6 October 2004 08/11/2004 Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Authorized officer Fax: (+31-70) 340-3016 Boudet, J



International Application No PCI/EP2004/006063

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Internal Application No PCT/EP2004/006063

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